

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-20. (Canceled)

21. (Currently Amended) A method of measuring an amount of a coating on a paper web, the method comprising:

measuring an amount of at least one component of the coating on the paper web;

measuring a chemical composition of a coating to be transferred to the paper web by determining at least one of an amount of at least one component in the coating to be transferred to the paper web and a ratio of two or more components in the coating to be transferred to the paper web; and

determining an amount of the coating on the paper web on a basis of the amount of the at least one component of the coating on the paper web and the measured chemical composition of the coating to be transferred to the paper web.

22. (Previously Presented) The method as claimed in claim 21, further comprising adjusting the amount of the coating on the paper web on a basis of the measurement of the amount of the coating on the paper web.

23. (Previously Presented) The method as claimed in claim 21, wherein the amount of the at least one component of the coating on the paper web is measured by a reflection measurement.

24. (Previously Presented) The method as claimed in claim 23, wherein the amount of the at least one component of the coating on the paper web measured by the reflection measurement is based on an infrared technique.

25. (Currently Amended) The method as claimed in claim 21, wherein the chemical composition of the coating to be transferred to the paper web is determined by a reflection measurement based on an infrared technique.

26. (Currently Amended) The method as claimed in claim 21, wherein the chemical composition of the coating to be transferred to the paper web is determined by a Raman spectroscopy based on a molecular vibration spectroscopy.

27. (Previously Presented) The method as claimed in claim 21, wherein the amount of the at least one component of the coating on the paper web is measured continuously.

28. (Previously Presented) The method as claimed in claim 21, wherein the amount of the at least one component of the coating on the paper web is an amount of a pigment in the coating on the paper web.

29. (Currently Amended) The method as claimed in claim 21, wherein the chemical composition of the coating to be transferred to the paper web is determined continuously.

30. (Currently Amended) An apparatus for measuring an amount of a coating on a paper web, the apparatus comprising:

a first measuring device arranged to measure an amount of at least one component in the coating on the paper web by reflection measurement;

a second measuring device arranged to measure a chemical composition of a coating to be transferred to the paper web, the chemical composition being at least one of an amount of at least one component in the coating to be transferred to the paper web and a ratio of two or more components in the coating to be transferred to the paper web; and

a data processing device arranged to determine the amount of the coating on the paper web on a basis of the amount of the at least one component of the coating on the

paper web and the measured chemical composition of the coating to be transferred to the paper web.

31. (Previously Presented) The apparatus as claimed in claim 30, the apparatus further comprising a control device arranged to adjust the amount of the coating on the paper web on a basis of the measurement of the amount of the coating on the paper web.

32. (Previously Presented) The apparatus as claimed in claim 30, wherein the first measuring device is arranged to measure the amount of the at least one component of the coating on the paper web by a reflection measurement.

33. (Previously Presented) The apparatus as claimed in claim 32, wherein the first measuring device arranged to measure the amount of the at least one component of the coating on the paper web by the reflection measurement is based on an infrared technique.

34. (Currently Amended) The apparatus as claimed in claim 30, wherein the second measuring device is arranged to determine the chemical composition of the coating to be transferred to the paper web by a reflection measurement based on an infrared technique.

35. (Currently Amended) The apparatus as claimed in claim 30, wherein the second measuring device is arranged to determine the chemical composition of the coating to be transferred to the paper web by a Raman spectroscopy based on a molecular vibration spectroscopy.

36. (Previously Presented) The apparatus as claimed in claim 30, wherein the first measuring device is arranged to measure the amount of the at least one component of the coating on the paper web continuously.

37. (Previously Presented) The apparatus as claimed in claim 30, wherein the amount of the at least one component of the coating on the paper web is an amount of a pigment in the coating on the paper web.

38. (Currently Amended) The apparatus as claimed in claim 30, wherein the second measuring device is arranged to determine the chemical composition of the coating to be transferred to the paper web continuously.

39. (Previously Presented) The apparatus as claimed in claim 30, wherein the second measuring device is arranged in a coating colour reservoir in a coating head, in a coating mixer, in a feed line between the coating mixer and the coating colour reservoir or in a separate sample line leaving the coating colour reservoir.

40. (Previously Presented) The apparatus as claimed in claim 30, wherein the second measuring device is arranged in a coating colour reservoir in a coating head, in a coating storage or a machine tank, in a transfer line between the coating storage and the machine tank, in a transfer line between the machine tank and the coating colour reservoir, in a separate sample line leaving the coating storage or the machine tank or in a separate sample line leaving the coating colour reservoir.